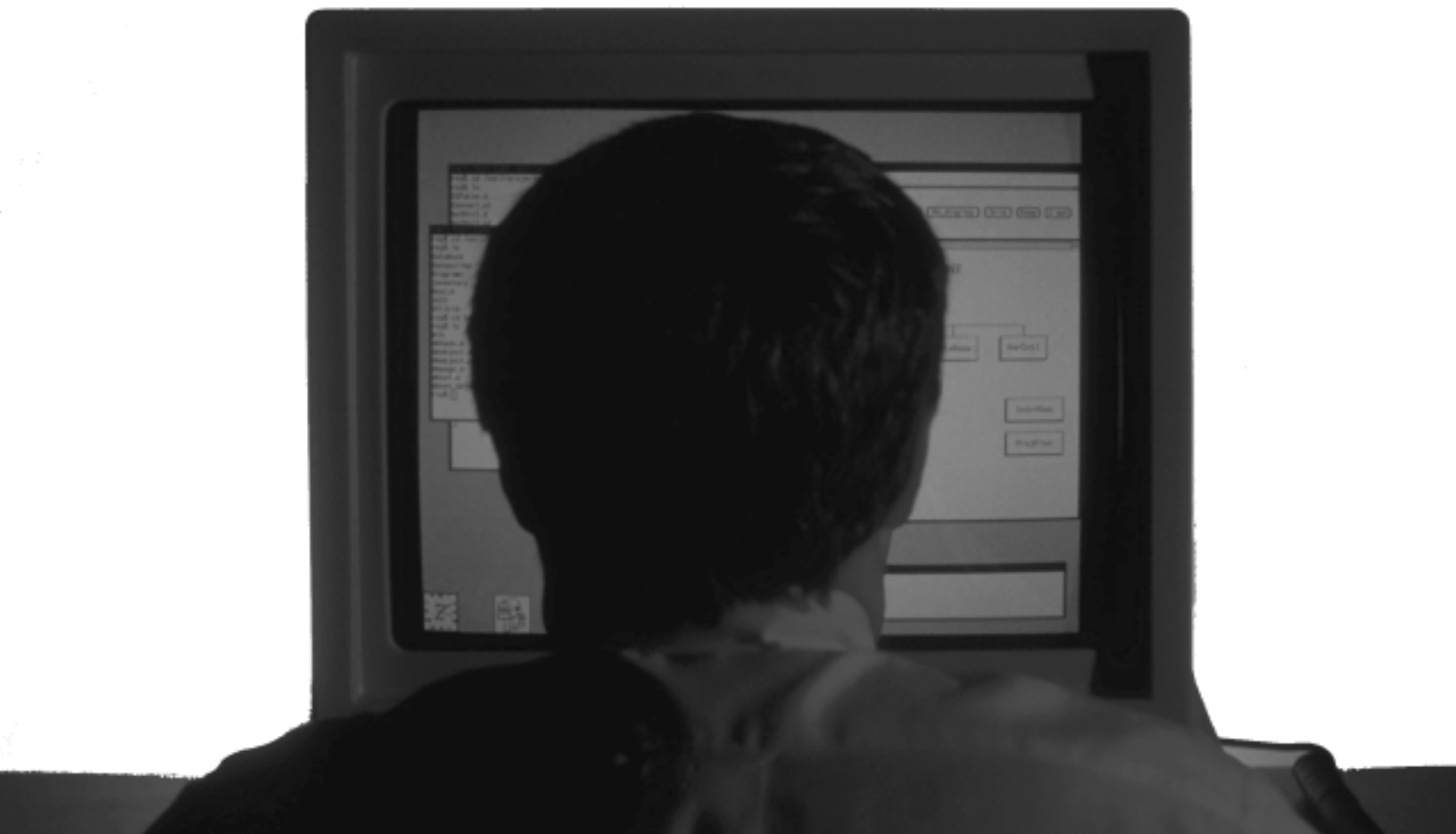


**Tennessee Council on
Vocational-Technical Education**

**Employer
Expectations**



Tennessee Council on Vocational-Technical Education Employer Expectations

A report prepared under contract for the Tennessee Council on Vocational-Technical Education, Nashville, Tennessee, by the Bureau of Business and Economic Research/Center for Manpower Studies at The University of Memphis, Memphis, Tennessee, in August 2000.

Table of Contents

List of Tables	iv
About TCOVE	vi
Mission Statement	vii
Executive Summary	viii
Introduction	1
Research Methodology	2
Comparative Results	4
Conclusions	11
Recommendations	12
Further Research	13
References	14
Appendix A: Employer Expectations Survey	15
Appendix B: Sample Response	18
Appendix C: Frequency Distributions	19
Appendix D: Analysis of Variance and Multiple Comparison Tests	35

List of Tables

<u>Table</u>	<u>Title</u>	<u>Page</u>
1	Shared Misperceptions	4
2	Academic and Work Misperceptions	6
3	Self-Image and Behavioral Misperceptions	8
4	Accountability Misperceptions	10

About TCOVE

The Tennessee Council on Vocational-Technical Education (TCOVE) consists of thirteen members appointed by the governor to serve in an advisory capacity to the Tennessee Board of Education, Tennessee Board of Regents, the governor, and the general assembly. Members of the council are appointed to serve terms of six years.

Seven individuals are representatives of the private sector in the state and constitute a majority of the membership. Six individuals are representatives of secondary and post-secondary vocational institutions, career guidance and counseling organizations within the state, and/or individuals who have special knowledge and qualifications with respect to the special educational and career development needs of special populations.

Duties of the Tennessee Council on Vocational-Technical Education include:

- (1) To meet with the Tennessee Board of Education or its representatives during the planning year to advise on the development of the state plan;
- (2) To advise the Tennessee Board of Education and make reports to the governor, the business community, and the general public of the state;
- (3) To analyze and report on the distribution of spending for vocational education in the state and on the availability of vocational education activities and services within the state;
- (4) To furnish consultation to the Tennessee Board of Education on the establishment of evaluation criteria for vocational education programs within the state;
- (5) To submit recommendations to the Tennessee Board of Education on the conduct of vocational education programs within the state;
- (6) To assess the distribution of financial assistance furnished under Tennessee laws, particularly the analysis of the distribution of financial assistance between secondary and post-secondary vocational education programs;
- (7) To recommend procedures to the Tennessee Board of Education to ensure and enhance the participation of the public in the provision of vocational education at the local level within the state;
- (8) To report to the Tennessee Board of Education on the extent to which individuals are provided with equal access to quality vocational education programs.

Mission Statement

The mission of Vocational-Technical Education is to enhance the economic development process by providing persons of all ages, socioeconomic statuses, and learning potentials with opportunities to acquire career competencies for the workplace and foundations for career development through matriculation to higher education.

Vocational-Technical Education is an integral component of public education in Tennessee—providing individuals (secondary students, post-secondary students, and adults) opportunities to attain occupational competencies and rel-

evant academic instruction. The system is dedicated to helping all achieve levels of personal accomplishments consistent with their interest, aptitudes, desires, and abilities.

The underlying philosophy of vocational education in Tennessee is that students are entitled to equal opportunity to full participation in the benefits of our society, culture, and economics. Also, all students are entitled to equal opportunity to participate in a quality vocational program that develops basic learning skills and offers useful vocational training.

Executive Summary

The Tennessee Council on Vocational Education (TCOVE) surveyed employers across the state known for hiring vocational education students to determine what personal and professional skills and characteristics they expected from their employees. All variables were known to be of some importance to employers based upon previous research studies. A rating scale was used to estimate different levels of importance. The survey administered to employers was the same one administered to a state-wide sample of 12th grade vocational education students and their counselors and to technology center students and their student services coordinators.

Significant statistical differences occurred on all 30 of the variables when comparing the mean scores of the employers, counselors, and two groups of students. Multiple comparison estimates revealed differences between employers and one or more of the three comparison groups. Counselors' and student services coordinators' perceptions differed from employers' on a third of the items. High school and technology students' perceptions differed from employers' on two-thirds of the items.

- Employers' responses focused on self-reliance.
- Counselors' responses focused on academic measures.
- High school students' responses focused on self-image.
- Technology center students' responses focused on accountability.
- Distinctions between the two groups of students appear indicative of variations in age, work experiences, and the difference in compulsory and elective education.
- Students' and counselors' perceptions of competition were the same as those of employers.
- There were only four variables in which counselors and students differed from employers: encouraging team work, willingness to travel, interviewing, and computer skills.

- ▶ Counselors and coordinators in high schools and technology centers had differences in perceptions of employer expectations based primarily upon academic and work ethic behaviors.
- ▶ High school students' perceptions varied from employers' expectations on definitions relating to self-image and behavioral characteristics.
- ▶ Technology center students tended to rate levels of importance on variables higher than did employers in general, which implies that these students have an exaggerated perception of employer expectations.
- ▶ Open-ended questions were answered by nearly one-third of the respondents. Response totals cannot be taken to have significant statistical differences. The one characteristic omitted from the survey that all groups felt should have been included was honesty/integrity. The most important item on the survey according to employers was a tie between attendance and commitment, for counselors was a tie between attendance and willingness to accept responsibility, for high school students was hygiene, and for technology center students was attendance.



Introduction

Tennessee's vocational-technical education system is working hard to provide local industries with well-trained workers who are ready to meet the challenges of a rapidly changing workplace environment. For Tennesseans to continue enjoying the economic prosperity of recent years, workers will need to enter the workforce occupationally prepared. Research in the United States, the United Kingdom, Australia, and China reports many common personal attributes, behavioral characteristics, and skills needed by employers who employ secondary and postsecondary vocational education students. Representatives of business, industry, and organized labor who participated in five Tennessee vocational forums in 1998 concurred with the

findings of scholars who reported that employers need well-trained employees with a strong work ethic. Basic employment skills for students were one of the concerns reported in *Tennessee Council on Vocational-Technical Education (TCOVE) Biennial Report 1997/1998*. To prepare a student for the work world, instruction and counseling must be geared to employer expectations, as well as to the student's personal management of his or her life. Therefore, TCOVE surveyed employers and high school and technology center vocational students, along with their counselors, to determine if there were perceptual differences among the groups regarding what employers ranked as important characteristics of employees.



Research Methodology

A 30-item survey (included in the appendix) was constructed which identified academic, social, and vocational considerations noted in previous research studies on employer expectations (Chi-Kim & Lewis, 1998; Hyland, 1996; Leroux & Lafluer, 1995; Lotto, 1986; College Placement Council, 1993). Internal reliability of the survey instrument measured .94, which is excellent. Many handwritten notes from all four groups (employers of vocational-technical education students, high school counselors and technology center student services coordinators, 12th grade vocational high school students, and technology center students) attached to the returned surveys indicated that the survey instrument was quite inclusive and complete and that the respondents thought the study was important to everyone concerned.

The survey included items that relate to the multiple dimensions of vocational preparedness. Hygiene and attire described personal visual presentation. Self-confidence, willingness to accept responsibility, initiative, creativity, goal achievement, and direction demonstrated positive self-image and independent thought. Lack of criminal record and drug usage, and the ability to handle conflict conveyed social responsibility. Leadership, commitment, attendance, ambition, self-knowledge, and competitiveness expressed collaborative work attitudes. Oral and written communication, intelligence, computational, computer, and vocational skills identified basic academic requirements for most areas of employment.

Surveys were mailed in the late spring and early summer of 2000 to a cross-section of students and employers across the state, including

samples from East, Middle, and West Tennessee and from both rural and urban areas. Using information provided by the Tennessee Department of Education and the Tennessee Board of Regents, an attempt was made to survey all high school counselors and technology center student services coordinators. Since there are hundreds of high schools and less than 30 technology centers, counselors





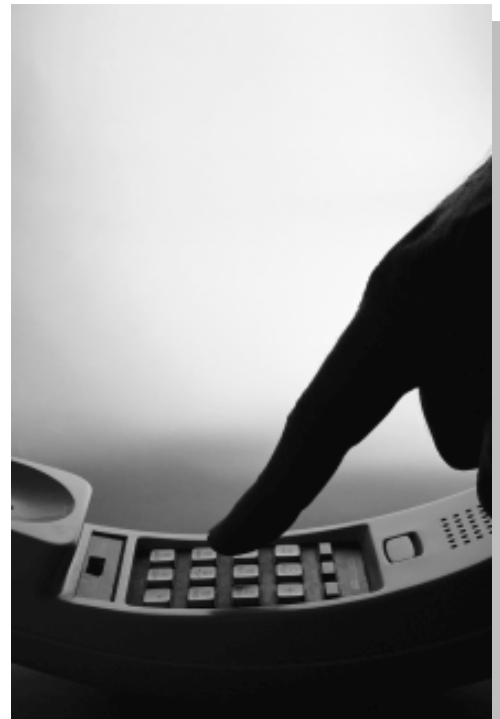
ordinators, making error of variance estimates less likely.

Although follow-up tests on the ANOVA reveal differences in

and coordinators are identified in the analysis as the same group. The employer mailing list was developed from the satisfaction study of vocational-technical programs conducted by TCOVE two years ago. Businesses with over 500 employees were identified as large, and businesses with less than 500 employees were identified as small. Vocational education students were selected from high schools in 15 counties and from 15 technology centers. High school students included only 12th graders, but students were selected from participants from each program of study in the secondary and postsecondary institutions. Follow-up included mailed letters, e-mail reminders, and /or telephone calls.

Responses with no missing data totaled 3,175, with an overall response rate of 64 percent. Frequency distributions by group included all respondents; the analysis of variance (ANOVA) included equal numbers of employers and student groups and all of the counselors. Although counselors had the smallest number of responses (439), that number represents 61 percent of the population of counselors and student services co-

comparison between all four groups, the purpose of this study was to compare employers to the other three groups; therefore, the discussion will be limited to that comparison. The Employer Expectations Survey, the frequency distribution of responses, response rates by group, analysis of variance, and follow-up multiple comparison tests are included in the appendices.



Comparative Results

Of the 30 skills and characteristics listed on the survey, only competitiveness had no significant statistical difference when compared to employers' ratings. This might well be explained by the culture of classrooms in having student performance measured relative to others throughout elementary, secondary, and postsecondary education. Students and counselors believed that employers use the same practice of appraisals in business. In fact, many businesses practice this same procedure in employee work appraisals. Standardized evaluation forms, or at least common evaluation forms, determine minimum efforts and productivity for performance-based wage increments and advancement possibilities. These appraisals are often in the form of ratings, or grades, common to educational institutions. The animosity and opposition between students and teachers regarding performance measurement carry over to employees and

employers because measurement is often viewed as subjective rather than objective. Nonetheless, the policies and procedures are similar and accepted by both educational and business institutions.

Four variables had significant statistical differences among all of the groups when compared to employers' ratings: interpersonal skills, willingness to travel, interviewing skills, and computer skills (see Table 1). Interpersonal skills, defined in this study as encouraging others to become effective, enthusiastic members of a team, were rated higher by employers than they were by counselors and both groups of vocational students. This finding reflects the Council's biennial report of two years ago. Working independently is stressed throughout educational experiences, beginning in elementary school and continuing into postsecondary and graduate education. Receiving help with homework and other instruc-

Table 1. Shared Misperceptions

Variable	Group	Mean	Variable	Group	Mean
Willingness to Travel	Employers	2.16	Interviewing Skills	Employers	3.58
	Counselors	2.82		Counselors	3.84
	HS Students	3.01		HS Students	3.96
	Tech Students	3.04		Tech Students	4.16
	Group	Mean		Group	Mean
Interpersonal Skills	Employers	4.33	Computer Skills	Employers	3.19
	Counselors	4.15		Counselors	3.74
	HS Students	3.80		HS Students	3.61
	Tech Students	4.03		Tech Students	3.68

tional exercises is often viewed as cheating. Independence is highly regarded as a virtue, especially in the United States, where it is the crux of the national heritage.

Every business has a place for some independent thought, but employers in this survey, as well as others, indicated that employers need employees working as a team to meet company objectives and goals. Although work has become more and more specialized by task, each task is part of a whole. It would be difficult, if not impossible, to accomplish any objective if most employees were independent-minded regarding all work assignments, or if employees failed to help others with work assignments when necessary.

Students working together to accomplish a goal, like employees working to accomplish a task, often elicit the same dissonance. A few students/employees believe that they complete the bulk of work assignments while others are allowed to coast. Sometimes there are too many leaders and not enough followers, or vice versa. Those who contribute most want more recognition and higher wages. Problems encountered in team evaluation involve issues of personality, ability, and quality of effort, thereby making performance measurement somewhat more complicated than judging individual performance on a specific standard. All these issues add to the dilemma of a philosophical approach to teaching, especially the instruction of youth who lack maturity and life experiences.

Employers rated willingness to travel as less important than did counselors and both groups of students. With the continued increase in teleconferencing and other electronic/telephony in-

novations, fewer business people must travel, which could explain why this difference occurred in the rating of the importance of travel to employers. Business travel is also associated with large companies, those employing 500 or more. Since there are far more small businesses than large businesses, the variance on this variable could be indicative of the number of small businesses responding to the survey. It should also be noted that only a small percentage of business people within any corporation must travel on a regular basis. Perhaps students and counselors were responding primarily to “willingness” to travel, if it were necessary for the position for which applicants were applying, rather than to the general expectation of employers for all employees.

Interviewing and computer skills were both rated lower in importance by employers than they were by counselors and both groups of students. Employers may be relying upon other screening practices before interviews to determine if recruits are qualified or prepared for open positions. For example, employment applications usually ask for an applicant’s knowledge and ability to use particular computer hardware and software. Certainly Tennessee’s secondary and postsecondary counselors are also preparing students for the world of work by emphasizing the importance of applications and resumes and the correct academic/vocational curriculum based upon students’ career intentions. Computer courses have become part of the core curriculum in many vocational education programs, and employers probably have come to realize that these skills are basic in the completion of high school or

postsecondary matriculation. Another possible explanation for some of the variance regarding computer skills is that in many service businesses, computers, especially in retail stores, are programmed with pictures, making computer usage almost altogether visual.

High school counselors and technology center student services coordinators came closer than either group of students in measuring employer expectations. In addition to the four variables just addressed, counselors differed with employers on academic and work characteristics (see Table 2). Employers rated oral and written communication and computational skills lower than did counselors, whereas employers rated intelligence, initiative, leadership, and ambition higher than did counselors. This is not surprising for two reasons. One, vocational education students are perceived as having lower basic skills than academic track students, so employers may have lowered expectations of these students. The second reason could be the teaching model that emphasizes academic advancement measured primarily through oral and written communication. Education is measured more on the number of

facts or bits of information students retain from particular disciplines than it is on the evaluation of information. The management of education continues to be in the hands of faculty and administrators because students are viewed as apprentices, since high school students are young, and in many cases are not judged as physiologically or emotionally ready for such decision-making. Initiative, leadership, and ambition, important in business models, are, again, not as important in the instructional models because faculty are viewed as the experts who decide the course of action to be taken.

All student services coordinators and some high school counselors have had experiences working outside academe, so they have first-hand knowledge of the world of work outside educational institutions. Personal familiarity with the workplace and an emphasis on placement for all technology center graduates may have accounted for the reason that coordinators rated the survey items somewhat higher than did the high school counselors. Prior work experience in business and industry gives counselors an advantage in advising students on how to fill out applications,

Table 2. Academic and Work Misperceptions

Variable	Group	Mean	Variable	Group	Mean
Oral Communication	Employers	4.12	Initiative	Employers	4.27
	Counselors	4.44		Counselors	4.12
	Group	Mean		Group	Mean
Written Communication	Employers	3.51	Leadership	Employers	3.90
	Counselors	4.10		Counselors	3.73
	Group	Mean		Group	Mean
Computational Skills	Employers	3.80	Ambition	Employers	4.01
	Counselors	4.03		Counselors	3.74
	Group	Mean			
Intelligence	Employers	4.48			
	Counselors	4.29			



did employers. Peer pressure and maturation into adulthood no doubt influence high school students to view personal appearance and self-awareness as more important than do employers. Vocational education students, compared to college prep students, are perceived

compose resumes, interview for the best results, and choose courses that will provide the correct vocational skills. However, this is not to say that employers do not find these skills necessary or that employees come to work with satisfactory basic skills. For businesses to be productive and profitable, according to employers who responded to this survey, employees need more than basic skills—they need to recognize company and personal objectives, to use time efficiently, to be willing to learn new skills, and to have a desire to advance within the company.

Compared to employers' ratings, vocational high school students differed on variables that relate primarily to self-image and behavioral characteristics (see Table 3). High school students rated hygiene, attire, valid driver's license, self-knowledge, direction, and CPR certification higher than

to be lacking in basic academic skills, which could lend further credence to the importance of outward appearance and self-awareness. Cultural family norms cannot be dismissed either. Educational preparation has been directly linked to family educational experiences. High school students who come from homes where the right of passage into the adult world means going to work and becoming self-sufficient after high school are



Table 3. Self-Image and Behavioral Misperceptions					
Variable	Group	Mean	Variable	Group	Mean
Hygiene	Employers	4.33	Commitment	Employers	4.54
	HS Students	4.50		HS Students	4.24
	Group	Mean		Group	Mean
Attire	Employers	3.80	Flexibility	Employers	4.11
	HS Students	4.09		HS Students	3.95
	Group	Mean		Group	Mean
Valid Driver's License	Employers	3.23	Ability to Handle Conflict	Employers	4.48
	HS Students	3.56		HS Students	4.14
	Group	Mean		Group	Mean
Self-Knowledge	Employers	3.77	Critical Thinking	Employers	4.17
	HS Students	3.91		HS Students	3.95
	Group	Mean		Group	Mean
CPR Certification	Employers	2.68	Attendance	Employers	4.79
	HS Students	3.36		HS Students	4.50
	Group	Mean		Group	Mean
Intelligence	Employers	4.48	No Illegal Drug Usage	Employers	4.51
	HS Students	4.31		HS Students	4.12
	Group	Mean		Group	Mean
Initiative	Employers	4.27	Lack of Criminal Record	Employers	4.19
	HS Students	3.86		HS Students	3.88
	Group	Mean			
Willingness to Accept Responsibility	Employers	4.58			
	HS Students	4.37			

more likely to be enrolled in vocational education programs of study. Because these students must make occupational choices early in life, they must clarify their potential in the workplace by knowing their strengths and weaknesses and arrive at some decisions about their personal knowledge base, skills, and goals.

Employers rated intelligence, initiative, willingness to accept responsibility, commitment, flexibility, ability to handle conflict, critical thinking, attendance, use of illegal drugs, and lack of a criminal record higher than did high school vocational education students. These behavioral characteristics are somewhat counter intuitive to teenagers because they are still under the authority of parents and teachers, both of whom are guid-

ing, directing, and trying to find a balance between safe controls and freedom of choice. Conflict tends to be handled by persons of authority, attendance in school is compulsory, and there is probably little attention given to critical thinking in vocational education classes since stress is placed on occupational training. The emphasis in secondary schools, however, tends to be on preparation for postsecondary training where, perhaps, it is assumed students will receive a concentration of instruction in employability skills. The technology centers actively prepare students to enter the workforce during or immediately after certification, which is a different emphasis from high school instruction. Based upon technology center students' perceptions of employ-

ers' expectations, there is something novel going on in these centers compared to the vocational high schools.

Technology center students rated employers' expectations disproportionately higher than did employers themselves, counselors, and high school students (see Table 4). One explanation for students rating employer expectations higher in general could be that employability skills are part of the curriculum in their programs of study. Accompanying the mission of technology centers to have programs that prepare students for employment with local businesses and industry is the interaction of younger students with older students.

The social interaction among the various age groups on technology center campuses probably raised the bar among students regarding employer expectations. Displaced and older entry-level workers circulate real stories among younger students about local business requirements and long-term hardships that have resulted from lack of skilled training. Along with this interaction, many young technology center students have their own present or previous work experience in low-wage occupations, which has influenced their perceptions of what employers expect, especially if students are to move to above-entry-level jobs. These expectations could be somewhat exaggerated in the minds of these adult learners because many of them are lacking in basic academic skills to start with, and they have almost certainly witnessed people with either good academic skills or social skills move up the corporate ladder.

Complementing the efforts of counselors and faculty in the technology centers are adult learn-

ers whose aspirations are to enter the job market or to enhance their careers through updated job skills. Unlike high schoolers, adult learners demand dedication on the part of the faculty because many adult learners realize that they are underprepared for work. These adult learners engage in elective education and pay the tuition; therefore, adult students are stakeholders in their learning experiences.

Another probable explanation lies in the Tennessee Board of Regents' direction of vocational-technical education based upon survey analysis from alumni and employers. Information gathered from regularly ordered surveys helps the Board of Regents influence instruction geared to the needs of students and employers.

Of the 21 statistically significant differences, employers rated only two, attendance and interpersonal skills, higher than did the vocational technology students. Emphasis on individual work and accountability is still prevalent in postsecondary education. It appears that teamwork is not emphasized enough even in postsecondary institutions. Group activities are especially difficult to complete with adult students because work, family responsibilities, and commute problems vie for students' time and attention. Many technology center classes demand attendance and punctuality to enhance the learning experience of students and to prepare students for employment. Since these adult students rated other items on the survey higher than did the employers, students might have responded to what are their own perceived employer tolerances and leniencies due to the tight labor market rather than is the case.

Table 4. Accountability Misperceptions					
Variable	Group	Mean	Variable	Group	Mean
Oral Communication	Employers	4.12	No Illegal Drug Usage	Employers	4.51
	Tech Students	4.31		Tech Students	4.50
	Group	Mean		Group	Mean
Intelligence	Employers	4.48	Self-Knowledge	Employers	3.77
	Tech Students	4.58		Tech Students	4.15
	Group	Mean		Group	Mean
Hygiene	Employers	4.33	Ability to Handle Conflict	Employers	4.48
	Tech Students	4.62		Tech Students	4.37
	Group	Mean		Group	Mean
Self-Confidence	Employers	4.22	Competitiveness	Employers	3.47
	Tech Students	4.42		Tech Students	3.50
	Group	Mean		Group	Mean
Willingness to Accept Responsibility	Employers	4.58	CPR Certification	Employers	2.68
	Tech Students	4.58		Tech Students	3.81
	Group	Mean		Group	Mean
Written Communication	Employers	3.51	Attire	Employers	3.80
	Tech Students	3.97		Tech Students	4.25
	Group	Mean		Group	Mean
Initiative	Employers	4.27	Critical Thinking	Employers	4.17
	Tech Students	4.12		Tech Students	4.22
	Group	Mean		Group	Mean
Lack of a Criminal Record	Employers	4.19	Goal Achievement	Employers	4.08
	Tech Students	3.89		Tech Students	4.27
	Group	Mean		Group	Mean
Leadership	Employers	3.90	Vocational Skills	Employers	4.15
	Tech Students	4.05		Tech Students	4.49
	Group	Mean		Group	Mean
Commitment	Employers	4.54	Ambition	Employers	4.01
	Tech Students	4.51		Tech Students	4.27
	Group	Mean		Group	Mean
Valid Driver s License	Employers	3.23	Direction	Employers	3.85
	Tech Students	3.62		Tech Students	4.30
	Group	Mean		Group	Mean
Creativity	Employers	3.62	Interpersonal Skills	Employers	4.33
	Tech Students	3.90		Tech Students	4.03
	Group	Mean		Group	Mean
Flexibility	Employers	4.11	Attendance	Employers	4.79
	Tech Students	4.16		Tech Students	4.68
	Group	Mean			
Computational Skills	Employers	3.80			
	Tech Students	4.15			

Conclusions

The United States has a market economy that is dependent upon maximum production. Employers who responded to this survey indicated that they are experiencing a major problem with productivity because of excessive employee absences and tardiness. High school counselors and technology center student services coordinators also indicated that students often fail to show up for class. This truancy dilemma can be attributed to several things: rebellion against controls of time and space, lack of motivation, disinterest, disability, tight labor market, or any number of personal problems.

Unfortunately, attention to attendance and day-to-day attitudes and behaviors that are slowing down productivity are overshadowing the greater needs of employers and the possibility for greater responsibility and wages for employees. Employers want employees to come to work with educational credentials that can be trusted, with social and business values that can be depended upon, and with self-reliance and accountability practices that can enhance business objectives. In return, employers are willing to give employees higher wages, greater benefits, and opportunities for advancement.

The gap between employer expectations and students' perceptions of employer expectations was greatest among vocational-technical high school students. Although high school counse-

lors had a good concept of what is expected at work, students did not. If one objective of secondary education is to move students immediately into the workplace, more attention will need to be devoted to business ethics and values, and students will need more interaction with employers during their high school years. High School counselors, technology center student services coordinators, and technology center students appear to possess a realistic view of current employer expectations, which are a balance between academic and social skills and behaviors with an emphasis upon teamwork and collaborative efforts.

If one objective of secondary education is to move students immediately into the workplace, more attention will need to be devoted to business ethics and values, and students will need more interaction with employers during their high school years.

Recommendations

The following recommendations regarding vocational-technical education's responsibility for preparing students for the world of work are suggested by the Bureau of Business and Economic Research/Center for Manpower Studies at The University of Memphis. Some of these recommendations are in keeping with the findings reported in *Tennessee Council of Vocational-Technical Education Biennial Report 1997/1998* as they related to students' employment skills.

1. Integration of basic academic and employability skills into vocational instruction, especially at the secondary level.
2. Institution of a class on market economy that will give secondary and postsecondary students an overview of why and how a nation functions as a productive unit.
3. Incorporation of the evaluation of employability skills on student assessments at the secondary and postsecondary levels.
4. Establishment of a fair and equitable standard for teaching and appraising teamwork.
5. More contact with employers by counselors, especially at the secondary level.
6. Emphasis of employer expectations by counselors and faculty, particularly in vocational high schools.
7. Further implementation of Job Shadowing and internship assignments.
8. Establishment of compliance standards for classroom attendance.
9. Compilation of a notebook containing job descriptions from area employers, along with the skills and personal traits required for the jobs and the skills required for moving up to the next wage level within the business.
10. Instruction in all classes that incorporates business values and on-the-job effectiveness.

Further Research

For every answer found in research, it seems another question arises. Although differences in perceptions of employer expectations were identified among the secondary and postsecondary vocational-technical students and their counselors, realities of instruction and learning also need to be identified. Therefore, the following research studies are suggested:

1. Qualitative research to determine the reality of what employers see in vocational-technical students and what teachers believe they are teaching students.
2. Qualitative research to determine the reality of what teachers believe they are teaching and what vocational-technical students believe they are learning.
3. Qualitative research to determine why students have bad attendance records.

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Appendix A

Employer Expectations Survey

Employer Expectations

Employers look for a variety of skills and attributes that vary in importance. On the General Purpose NCS Answer Sheet, please use a **Number 2 Lead Pencil** to bubble in the rating that best expresses your perceptions of employers' expectations of vocational education students, (for employers—expectations of vocational education students whom you hire or consider hiring). The rating scale is from one to five, with

1 = of least importance to 5 = of greatest importance

Example: A B C D E
 ● ② ③ ④ ⑤

1. Oral communication: organizing and presenting thoughts in a clear and persuasive voice
2. Intelligence: ability and willingness to learn new skills
3. Willingness to travel: going wherever is necessary for the job, either for the day or overnight
4. Hygiene: clean, fresh body, hair, and teeth
5. Self-confidence: dealing positively and effectively with situations and people
6. Willingness to accept responsibility: recognizing what needs to be done and doing it
7. Written communication: organizing and writing thoughts clearly and persuasively
8. Initiative: effective, productive use of down time
9. Lack of a criminal record
10. Leadership: guiding and directing others to obtain recognized objectives
11. Commitment: daily quality of work, with profitability of business in mind
12. Valid driver's license: legal verification of driving ability
13. Creativity: confronting and dealing with problems that may not have standard solutions
14. Flexibility: able to change and to be receptive to new situations and ideas
15. Computational skills: performing mathematical functions relevant to the job

Employer Expectations

16. Interpersonal skills: encouraging others to become effective, enthusiastic members of a team
17. No illegal drug usage
18. Self-knowledge: clearly recognizing one's own strengths and weaknesses
19. Interviewing skills: knowing how to present and sell oneself in order to obtain a job offer
20. Attendance: reporting to work as scheduled
21. Ability to handle conflict: resolving stressful situations in a non-violent manner
22. Competitiveness: having performance measured relative to others
23. CPR certification: ability to save others from choking or other threatening situations
24. Computer skills: adequate keyboarding skills to perform word processing and data entry
25. Attire: appropriate clothing and accessories for the business environment
26. Critical thinking: understanding assignments; contributing original ideas
27. Goal achievement: identifying and working toward specific, challenging aims
28. Vocational skills: possessing the appropriate education and skills for the job
29. Ambition: striving for advancement within the company where employed
30. Direction: understanding what position best suits one's knowledge, skills, and goals

Which of the 30 skills or characteristics do you consider to be the most important? Why?

What skill or characteristic that was not included in this survey would you have included? Why?

Thank you for your cooperation and help.

Appendix B

Sample Response

Group	Surveys Mailed	Surveys Returned	Response Rate
Employers	1,240	631	51.0%
Counselors and Coordinators	717	439	61.0%
High School Students	1,500	1,052	70.0%
Technology Center Students	1,500	1,053	70.0%
Total	4,957	3,175	64.0%

Appendix C

Frequency Distributions

			Oral Communication					Total
			1 = Least Importance	2	3	4	5 = Greatest Importance	
GROUP	Employers	Count	1	12	141	233	244	631
		% within GROUP	.2%	1.9%	22.3%	36.9%	38.7%	100.0%
	Counselors	Count	4	1	28	169	237	439
		% within GROUP	.9%	.2%	6.4%	38.5%	54.0%	100.0%
	HS Students	Count	32	62	214	287	457	1,052
		% within GROUP	3.0%	5.9%	20.3%	27.3%	43.4%	100.0%
	Tech Students	Count	21	23	135	268	606	1,053
		% within GROUP	2.0%	2.2%	12.8%	25.5%	57.5%	100.0%
Total	Count	58	98	518	957	1,544	3,175	
	% within GROUP	1.8%	3.1%	16.3%	30.1%	48.6%	100.0%	

			Intelligence					Total
			1 = Least Importance	2	3	4	5 = Greatest Importance	
GROUP	Employers	Count	2	4	53	205	367	631
		% within GROUP	.3%	.6%	8.4%	32.5%	58.2%	100.0%
	Counselors	Count	2	5	48	194	190	439
		% within GROUP	.5%	1.1%	10.9%	44.2%	43.3%	100.0%
	HS Students	Count	22	38	101	273	618	1,052
		% within GROUP	2.1%	3.6%	9.6%	26.0%	58.7%	100.0%
	Tech Students	Count	14	12	49	229	749	1,053
		% within GROUP	1.3%	1.1%	4.7%	21.7%	71.1%	100.0%
Total	Count	40	59	251	901	1,924	3,175	
	% within GROUP	1.3%	1.9%	7.9%	28.4%	60.6%	100.0%	

			Willingness to Travel					Total
			1 = Least Importance	2	3	4	5 = Greatest Importance	
GROUP	Employers	Count	217	190	151	49	24	631
		% within GROUP	34.4%	30.1%	23.9%	7.8%	3.8%	100.0%
	Counselors	Count	42	102	206	73	16	439
		% within GROUP	9.6%	23.2%	46.9%	16.6%	3.6%	100.0%
	HS Students	Count	114	235	355	198	150	1,052
		% within GROUP	10.8%	22.3%	33.7%	18.8%	14.3%	100.0%
	Tech Students	Count	92	209	438	190	124	1,053
		% within GROUP	8.7%	19.8%	41.6%	18.0%	11.8%	100.0%
Total	Count	465	736	1150	510	314	3,175	
	% within GROUP	14.6%	23.2%	36.2%	16.1%	9.9%	100.0%	

			Hygiene					Total
			1 = Least Importance	2	3	4	5 = Greatest Importance	
GROUP	Employers	Count	4	19	89	170	349	631
		% within GROUP	.6%	3.0%	14.1%	26.9%	55.3%	100.0%
	Counselors	Count	2	5	36	156	240	439
		% within GROUP	.5%	1.1%	8.2%	35.5%	54.7%	100.0%
	HS Students	Count	24	28	65	166	769	1,052
		% within GROUP	2.3%	2.7%	6.2%	15.8%	73.1%	100.0%
	Tech Students	Count	18	11	56	154	814	1,053
		% within GROUP	1.7%	1.0%	5.3%	14.6%	77.3%	100.0%
Total	Count	48	63	246	646	2,172	3,175	
	% within GROUP	1.5%	2.0%	7.7%	20.3%	68.4%	100.0%	

			Self-Confidence					Total
			1 = Least Importance	2	3	4	5 = Greatest Importance	
GROUP	Employers	Count	1	7	86	295	242	631
		% within GROUP	.2%	1.1%	13.6%	46.8%	38.4%	100.0%
	Counselors	Count	1	5	49	185	199	439
		% within GROUP	.2%	1.1%	11.2%	42.1%	45.3%	100.0%
	HS Students	Count	23	39	118	338	534	1,052
		% within GROUP	2.2%	3.7%	11.2%	32.1%	50.8%	100.0%
	Tech Students	Count	16	13	84	295	645	1,053
		% within GROUP	1.5%	1.2%	8.0%	28.0%	61.3%	100.0%
Total	Count	41	64	337	1,113	1,620	3,175	
	% within GROUP	1.3%	2.0%	10.6%	35.1%	51.0%	100.0%	

			Willingness to Accept Responsibility					Total
			1 = Least Importance	2	3	4	5 = Greatest Importance	
GROUP	Employers	Count	1	9	32	167	422	631
		% within GROUP	.2%	1.4%	5.1%	26.5%	66.9%	100.0%
	Counselors	Count	3	6	13	147	270	439
		% within GROUP	.7%	1.4%	3.0%	33.5%	61.5%	100.0%
	HS Students	Count	27	21	89	268	647	1,052
		% within GROUP	2.6%	2.0%	8.5%	25.5%	61.5%	100.0%
	Tech Students	Count	18	12	41	224	758	1,053
		% within GROUP	1.7%	1.1%	3.9%	21.3%	72.0%	100.0%
Total	Count	49	48	175	806	2,097	3,175	
	% within GROUP	1.5%	1.5%	5.5%	25.4%	66.0%	100.0%	

		Written Communication					Total
		1 = Least Importance	2	3	4	5 = Greatest Importance	
GROUP	Employers	Count % within GROUP	35 5.5%	65 10.3%	194 30.7%	220 34.9%	631 100.0%
	Counselors	Count % within GROUP		8 1.8%	81 18.5%	211 48.1%	439 100.0%
	HS Students	Count % within GROUP	34 3.2%	102 9.7%	313 29.8%	357 33.9%	1,052 100.0%
	Tech Students	Count % within GROUP	16 1.5%	57 5.4%	198 18.8%	385 36.6%	1,053 100.0%
Total		Count % within GROUP	85 2.7%	232 7.3%	786 24.8%	1,173 36.9%	3,175 100.0%

		Initiative					Total
		1 = Least Importance	2	3	4	5 = Greatest Importance	
GROUP	Employers	Count % within GROUP	7 1.1%	19 3.0%	64 10.1%	248 39.3%	631 100.0%
	Counselors	Count % within GROUP	4 .9%	14 3.2%	62 14.1%	203 46.2%	439 100.0%
	HS Students	Count % within GROUP	28 2.7%	74 7.0%	272 25.9%	377 35.8%	1,052 100.0%
	Tech Students	Count % within GROUP	16 1.5%	30 2.8%	180 17.1%	373 35.4%	1,053 100.0%
Total		Count % within GROUP	55 1.7%	137 4.3%	578 18.2%	1,201 37.8%	3,175 100.0%

		Lack of a Criminal Record					Total
		1 = Least Importance	2	3	4	5 = Greatest Importance	
GROUP	Employers	Count					
		% within GROUP					
	Counselors	Count					
		% within GROUP					
	HS Students	Count					
		% within GROUP					
	Tech Students	Count					
		% within GROUP					
Total	Count						
	% within GROUP						

		Leadership					Total
		1 = Least Importance	2	3	4	5 = Greatest Importance	
GROUP	Employers	Count					
		% within GROUP					
	Counselors	Count					
		% within GROUP					
	HS Students	Count					
		% within GROUP					
	Tech Students	Count					
		% within GROUP					
Total	Count						
	% within GROUP						

		Commitment					Total
		1 = Least Importance	2	3	4	5 = Greatest Importance	
GROUP	Employers	Count % within GROUP	5 .8%	10 1.6%	41 6.5%	156 24.7%	631 100.0%
	Counselors	Count % within GROUP	6 1.4%	1 .2%	32 7.3%	127 28.9%	439 100.0%
	HS Students	Count % within GROUP	31 2.9%	37 3.5%	114 10.8%	314 29.8%	1,052 100.0%
	Tech Students	Count % within GROUP	20 1.9%	13 1.2%	73 6.9%	236 22.4%	1,053 100.0%
Total	Count % within GROUP	62 2.0%	61 1.9%	260 8.2%	833 26.2%	1,959 61.7%	3,175 100.0%

		Valid Driver's License					Total
		1 = Least Importance	2	3	4	5 = Greatest Importance	
GROUP	Employers	Count % within GROUP	63 10.0%	112 17.7%	184 29.2%	158 25.0%	631 100.0%
	Counselors	Count % within GROUP	31 7.1%	77 17.5%	186 42.4%	101 23.0%	439 100.0%
	HS Students	Count % within GROUP	97 9.2%	120 11.4%	245 23.3%	227 21.6%	1,052 100.0%
	Tech Students	Count % within GROUP	80 7.6%	127 12.1%	274 26.0%	216 20.5%	1,053 100.0%
Total	Count % within GROUP	271 8.5%	436 13.7%	889 28.0%	702 22.1%	877 27.6%	3,175 100.0%

		Creativity					Total
		1 = Least Importance	2	3	4	5 = Greatest Importance	
GROUP	Employers	Count	35	248	224	112	631
	% within GROUP	1.9%	5.5%	39.3%	35.5%	17.7%	100.0%
	Counselors	Count	23	156	200	58	439
	% within GROUP	.5%	5.2%	35.5%	45.6%	13.2%	100.0%
	HS Students	Count	87	291	375	265	1,052
	% within GROUP	3.2%	8.3%	27.7%	35.6%	25.2%	100.0%
	Tech Students	Count	55	237	429	318	1,053
	% within GROUP	1.3%	5.2%	22.5%	40.7%	30.2%	100.0%
Total	Count	62	200	932	1,228	753	3,175
	% within GROUP	2.0%	6.3%	29.4%	38.7%	23.7%	100.0%

		Flexibility					Total
		1 = Least Importance	2	3	4	5 = Greatest Importance	
GROUP	Employers	Count	17	113	266	230	631
	% within GROUP	.8%	2.7%	17.9%	42.2%	36.5%	100.0%
	Counselors	Count	8	52	222	156	439
	% within GROUP	.2%	1.8%	11.8%	50.6%	35.5%	100.0%
	HS Students	Count	56	222	377	373	1,052
	% within GROUP	2.3%	5.3%	21.1%	35.8%	35.5%	100.0%
	Tech Students	Count	25	136	396	474	1,053
	% within GROUP	2.1%	2.4%	12.9%	37.6%	45.0%	100.0%
Total	Count	52	106	523	1,261	1,233	3,175
	% within GROUP	1.6%	3.3%	16.5%	39.7%	38.8%	100.0%

		Computational Skills					Total
		1 = Least Importance	2	3	4	5 = Greatest Importance	
GROUP	Employers	Count	8	55	162	237	631
		% within GROUP	1.3%	8.7%	25.7%	37.6%	100.0%
	Counselors	Count	5	7	93	201	439
		% within GROUP	1.1%	1.6%	21.2%	45.8%	100.0%
	HS Students	Count	35	87	277	355	1,052
		% within GROUP	3.3%	8.3%	26.3%	33.7%	100.0%
	Tech Students	Count	23	39	164	370	1,053
		% within GROUP	2.2%	3.7%	15.6%	35.1%	100.0%
Total	Count	71	188	696	1,163	1,057	3,175
	% within GROUP	2.2%	5.9%	21.9%	36.6%	33.3%	100.0%

		Interpersonal Skills					Total
		1 = Least Importance	2	3	4	5 = Greatest Importance	
GROUP	Employers	Count	2	12	84	212	631
		% within GROUP	.3%	1.9%	13.3%	33.6%	100.0%
	Counselors	Count	3	4	86	177	439
		% within GROUP	.7%	.9%	19.6%	40.3%	100.0%
	HS Students	Count	29	76	244	362	1,052
		% within GROUP	2.8%	7.2%	23.2%	34.4%	100.0%
	Tech Students	Count	20	39	190	378	1,053
		% within GROUP	1.9%	3.7%	18.0%	35.9%	100.0%
Total	Count	54	131	604	1,129	1,257	3,175
	% within GROUP	1.7%	4.1%	19.0%	35.6%	39.6%	100.0%

		No Illegal Drug Usage					Total	
		1 = Least Importance	2	3	4	5 = Greatest Importance		
GROUP	Employers	Count % within GROUP	13 2.1%	8 1.3%	60 9.5%	116 18.4%	434 68.8%	631 100.0%
	Counselors	Count % within GROUP	5 1.1%	4 .9%	44 10.0%	105 23.9%	281 64.0%	439 100.0%
	HS Students	Count % within GROUP	88 8.4%	66 6.3%	128 12.2%	145 13.8%	625 59.4%	1,052 100.0%
	Tech Students	Count % within GROUP	45 4.3%	30 2.8%	55 5.2%	108 10.3%	815 77.4%	1,053 100.0%
Total		Count % within GROUP	151 4.8%	108 3.4%	287 9.0%	474 14.9%	2,155 67.9%	3,175 100.0%

		Self-Knowledge					Total	
		1 = Least Importance	2	3	4	5 = Greatest Importance		
GROUP	Employers	Count % within GROUP	1 .2%	32 5.1%	214 33.9%	246 39.0%	138 21.9%	631 100.0%
	Counselors	Count % within GROUP	2 .5%	12 2.7%	126 28.7%	223 50.8%	76 17.3%	439 100.0%
	HS Students	Count % within GROUP	28 2.7%	69 6.6%	210 20.0%	356 33.8%	389 37.0%	1,052 100.0%
	Tech Students	Count % within GROUP	12 1.1%	37 3.5%	178 16.9%	356 33.8%	470 44.6%	1,053 100.0%
Total		Count % within GROUP	43 1.4%	150 4.7%	728 22.9%	1,181 37.2%	1,073 33.8%	3,175 100.0%

		Interviewing Skills					Total
		1 = Least Importance	2	3	4	5 = Greatest Importance	
GROUP	Employers	Count	67	186	213	138	631
		% within GROUP	10.6%	29.5%	33.8%	21.9%	100.0%
	Counselors	Count	20	111	210	94	439
		% within GROUP	4.6%	25.3%	47.8%	21.4%	100.0%
	HS Students	Count	65	192	335	425	1,052
		% within GROUP	6.2%	18.3%	31.8%	40.4%	100.0%
	Tech Students	Count	39	168	317	508	1,053
		% within GROUP	3.7%	16.0%	30.1%	48.2%	100.0%
Total	Count	87	191	657	1,075	1,165	3,175
	% within GROUP	2.7%	6.0%	20.7%	33.9%	36.7%	100.0%

		Attendance					Total
		1 = Least Importance	2	3	4	5 = Greatest Importance	
GROUP	Employers	Count	4	14	74	535	631
		% within GROUP	.6%	2.2%	11.7%	84.8%	100.0%
	Counselors	Count	6	8	59	365	439
		% within GROUP	1.4%	1.8%	13.4%	83.1%	100.0%
	HS Students	Count	28	70	160	768	1,052
		% within GROUP	2.7%	6.7%	15.2%	73.0%	100.0%
	Tech Students	Count	22	42	123	856	1,053
		% within GROUP	2.1%	4.0%	11.7%	81.3%	100.0%
Total	Count	60	41	134	416	2,524	3,175
	% within GROUP	1.9%	1.3%	4.2%	13.1%	79.5%	100.0%

		Ability to Handle Conflict					Total
		1 = Least Importance	2	3	4	5 = Greatest Importance	
GROUP	Employers	Count					
		% within GROUP					
	Counselors	Count					
		% within GROUP					
	HS Students	Count					
		% within GROUP					
	Tech Students	Count					
		% within GROUP					
Total	Count						
	% within GROUP						

		Competitiveness					Total
		1 = Least Importance	2	3	4	5 = Greatest Importance	
GROUP	Employers	Count					
		% within GROUP					
	Counselors	Count					
		% within GROUP					
	HS Students	Count					
		% within GROUP					
	Tech Students	Count					
		% within GROUP					
Total	Count						
	% within GROUP						

		CPR Certification					Total
		1 = Least Importance	2	3	4	5 = Greatest Importance	
GROUP	Employers	Count % within GROUP	145 23.0%	130 20.6%	212 33.6%	73 11.6%	631 100.0%
	Counselors	Count % within GROUP	46 10.5%	126 28.7%	181 41.2%	73 16.6%	439 100.0%
	HS Students	Count % within GROUP	105 10.0%	151 14.4%	283 26.9%	244 23.2%	1,052 100.0%
	Tech Students	Count % within GROUP	55 5.2%	119 11.3%	247 23.5%	220 20.9%	1,053 100.0%
Total	Count % within GROUP	351 11.1%	526 16.6%	923 29.1%	610 19.2%	765 24.1%	3,175 100.0%

		Computer Skills					Total
		1 = Least Importance	2	3	4	5 = Greatest Importance	
GROUP	Employers	Count % within GROUP	80 12.7%	88 13.9%	189 30.0%	183 29.0%	631 100.0%
	Counselors	Count % within GROUP	3 .7%	19 4.3%	138 31.4%	209 47.6%	439 100.0%
	HS Students	Count % within GROUP	57 5.4%	92 8.7%	288 27.4%	334 31.7%	1,052 100.0%
	Tech Students	Count % within GROUP	50 4.7%	75 7.1%	296 28.1%	330 31.3%	1,053 100.0%
Total	Count % within GROUP	190 6.0%	274 8.6%	911 28.7%	1,056 33.3%	744 23.4%	3,175 100.0%

		Attire					Total
		1 = Least Importance	2	3	4	5 = Greatest Importance	
GROUP	Employers	Count % within GROUP	11 1.7%	55 8.7%	164 26.0%	220 34.9%	631 100.0%
	Counselors	Count % within GROUP	1 .2%	12 2.7%	100 22.8%	225 51.3%	439 100.0%
	HS Students	Count % within GROUP	40 3.8%	43 4.1%	174 16.5%	316 30.0%	1,052 100.0%
	Tech Students	Count % within GROUP	27 2.6%	40 3.8%	119 11.3%	315 29.9%	1,053 100.0%
Total		Count % within GROUP	79 2.5%	150 4.7%	557 17.5%	1,076 33.9%	3,175 100.0%

		Critical Thinking					Total
		1 = Least Importance	2	3	4	5 = Greatest Importance	
GROUP	Employers	Count % within GROUP	4 .6%	15 2.4%	108 17.1%	249 39.5%	631 100.0%
	Counselors	Count % within GROUP	2 .5%	13 3.0%	69 15.7%	243 55.4%	439 100.0%
	HS Students	Count % within GROUP	32 3.0%	47 4.5%	214 20.3%	405 38.5%	1,052 100.0%
	Tech Students	Count % within GROUP	17 1.6%	31 2.9%	127 12.1%	362 34.4%	1,053 100.0%
Total		Count % within GROUP	55 1.7%	106 3.3%	518 16.3%	1,259 39.7%	3,175 100.0%

		Goal Achievement					Total
		1 = Least Importance	2	3	4	5 = Greatest Importance	
GROUP	Employers	Count	16	115	291	206	631
		% within GROUP	2.5%	18.2%	46.1%	32.6%	100.0%
	Counselors	Count	10	95	224	108	439
		% within GROUP	2.3%	21.6%	51.0%	24.6%	100.0%
	HS Students	Count	57	175	358	434	1,052
		% within GROUP	5.4%	16.6%	34.0%	41.3%	100.0%
	Tech Students	Count	29	132	357	525	1,053
		% within GROUP	2.8%	12.5%	33.9%	49.9%	100.0%
Total	Count	43	112	517	1,230	1,273	3,175
	% within GROUP	1.4%	3.5%	16.3%	38.7%	40.1%	100.0%

		Vocational Skills					Total
		1 = Least Importance	2	3	4	5 = Greatest Importance	
GROUP	Employers	Count	30	112	214	273	631
		% within GROUP	4.8%	17.7%	33.9%	43.3%	100.0%
	Counselors	Count	6	63	162	205	439
		% within GROUP	1.4%	14.4%	36.9%	46.7%	100.0%
	HS Students	Count	42	144	308	528	1,052
		% within GROUP	4.0%	13.7%	29.3%	50.2%	100.0%
	Tech Students	Count	17	84	224	708	1,053
		% within GROUP	1.6%	8.0%	21.3%	67.2%	100.0%
Total	Count	55	95	403	908	1,714	3,175
	% within GROUP	1.7%	3.0%	12.7%	28.6%	54.0%	100.0%

		Ambition					Total
		1 = Least Importance	2	3	4	5 = Greatest Importance	
GROUP	Employers	Count	10	141	279	192	631
	% within GROUP	1.4%	1.6%	22.3%	44.2%	30.4%	100.0%
	Counselors	Count	24	137	203	74	439
	% within GROUP	.2%	5.5%	31.2%	46.2%	16.9%	100.0%
	HS Students	Count	32	151	349	480	1,052
	% within GROUP	3.8%	3.0%	14.4%	33.2%	45.6%	100.0%
	Tech Students	Count	31	127	306	569	1,053
	% within GROUP	1.9%	2.9%	12.1%	29.1%	54.0%	100.0%
Total	Count	70	97	556	1,137	1,315	3,175
	% within GROUP	2.2%	3.1%	17.5%	35.8%	41.4%	100.0%

		Direction					Total
		1 = Least Importance	2	3	4	5 = Greatest Importance	
GROUP	Employers	Count	23	161	320	123	631
	% within GROUP	.6%	3.6%	25.5%	50.7%	19.5%	100.0%
	Counselors	Count	16	132	204	85	439
	% within GROUP	.5%	3.6%	30.1%	46.5%	19.4%	100.0%
	HS Students	Count	54	159	347	457	1,052
	% within GROUP	3.3%	5.1%	15.1%	33.0%	43.4%	100.0%
	Tech Students	Count	24	135	318	560	1,053
	% within GROUP	1.5%	2.3%	12.8%	30.2%	53.2%	100.0%
Total	Count	57	117	587	1,189	1,225	3,175
	% within GROUP	1.8%	3.7%	18.5%	37.4%	38.6%	100.0%

Appendix D

Analysis of Variance and Multiple Comparison Tests

ANOVA		Sum of Squares	df	Mean Square	F	Sig.	Group	Mean	Sig.
Oral Communication	Between Groups	63.58	3.00	21.193	25.469	0.00	Employers	4.12	
	Within Groups	1,937.10	2,328.00	0.832			Counselors	4.44	0.000
	Total	2,000.68	2,331.00				HS Students	4.00	0.088
							Tech Students	4.31	0.001
Intelligence	Between Groups	33.30	3.00	11.099	16.780	0.00	Employers	4.48	
	Within Groups	1,539.81	2,328.00	0.661			Counselors	4.29	0.001
	Total	1,573.11	2,331.00				HS Students	4.31	0.002
							Tech Students	4.58	0.110
Willingness to Travel	Between Groups	314.97	3.00	104.991	85.769	0.00	Employers	2.16	
	Within Groups	2,849.74	2,328.00	1.224			Counselors	2.82	0.000
	Total	3,164.72	2,331.00				HS Students	3.01	0.000
							Tech Students	3.04	0.000
Hygiene	Between Groups	27.58	3.00	9.193	12.620	0.00	Employers	4.33	
	Within Groups	1,695.83	2,328.00	0.728			Counselors	4.43	0.274
	Total	1,723.40	2,331.00				HS Students	4.50	0.003
							Tech Students	4.62	0.000
Self-Confidence	Between Groups	17.85	3.00	5.950	8.423	0.00	Employers	4.22	
	Within Groups	1,644.61	2,328.00	0.706			Counselors	4.31	0.294
	Total	1,662.46	2,331.00				HS Students	4.21	0.999
							Tech Students	4.42	0.000
Willingness to Accept Responsibility	Between Groups	19.24	3.00	6.413	10.176	0.00	Employers	4.58	
	Within Groups	1,467.17	2,328.00	0.630			Counselors	4.54	0.774
	Total	1,486.41	2,331.00				HS Students	4.37	0.000
							Tech Students	4.58	0.999
Written Communication	Between Groups	131.79	3.00	43.929	44.642	0.00	Employers	3.51	
	Within Groups	2,290.85	2,328.00	0.984			Counselors	4.10	0.000
	Total	2,422.63	2,331.00				HS Students	3.61	0.216
							Tech Students	3.97	0.000
Initiative	Between Groups	54.66	3.00	18.219	22.149	0.00	Employers	4.27	
	Within Groups	1,914.89	2,328.00	0.823			Counselors	4.12	0.046
	Total	1,969.55	2,331.00				HS Students	3.86	0.000
							Tech Students	4.12	0.020

ANOVA		Sum of Squares	df	Mean Square	F	Sig.	Group	Mean	Sig.
Lack of a Criminal Record	Between Groups	41.94	3.00	13.979	10.965	0.00	Employers	4.19	
	Within Groups	2,968.06	2,328.00	1.275			Counselors	4.08	0.414
	Total	3,010.00	2,331.00				HS Students	3.88	0.000
							Tech Students	3.89	0.000
Leadership	Between Groups	27.93	3.00	9.311	10.901	0.00	Employers	3.90	
	Within Groups	1,988.48	2,328.00	0.854			Counselors	3.73	0.012
	Total	2,016.41	2,331.00				HS Students	3.95	0.844
							Tech Students	4.05	0.022
Commitment	Between Groups	35.80	3.00	11.932	16.109	0.00	Employers	4.54	
	Within Groups	1,724.39	2,328.00	0.741			Counselors	4.50	0.876
	Total	1,760.19	2,331.00				HS Students	4.24	0.000
							Tech Students	4.51	0.902
Valid Driver's License	Between Groups	100.17	3.00	33.390	22.097	0.00	Employers	3.23	
	Within Groups	3,517.70	2,328.00	1.511			Counselors	3.11	0.390
	Total	3,617.87	2,331.00				HS Students	3.56	0.000
							Tech Students	3.62	0.000
Creativity	Between Groups	28.57	3.00	9.522	10.900	0.00	Employers	3.62	
	Within Groups	2,033.79	2,328.00	0.874			Counselors	3.66	0.889
	Total	2,062.36	2,331.00				HS Students	3.71	0.299
							Tech Students	3.90	0.000
Flexibility	Between Groups	20.26	3.00	6.752	8.297	0.00	Employers	4.11	
	Within Groups	1,894.65	2,328.00	0.814			Counselors	4.19	0.419
	Total	1,914.90	2,331.00				HS Students	3.95	0.012
							Tech Students	4.16	0.675
Computational Skills	Between Groups	70.48	3.00	23.494	24.554	0.00	Employers	3.80	
	Within Groups	2,227.52	2,328.00	0.957			Counselors	4.03	0.001
	Total	2,298.00	2,331.00				HS Students	3.73	0.640
							Tech Students	4.15	0.000

ANOVA		Sum of Squares	df	Mean Square	F	Sig.	Group	Mean	Sig.
Interpersonal Skills	Between Groups	93.15	3.00	31.051	36.161	0.00	Employers	4.33	
	Within Groups	1,999.03	2,328.00	0.859			Counselors	4.15	0.011
	Total	2,092.18	2,331.00				HS Students	3.80	0.000
							Tech Students	4.03	0.000
No Illegal Drug Usage	Between Groups	66.09	3.00	22.029	20.270	0.00	Employers	4.51	
	Within Groups	2,530.01	2,328.00	1.087			Counselors	4.49	0.992
	Total	2,596.09	2,331.00				HS Students	4.12	0.000
							Tech Students	4.50	1.000
Self-Knowledge	Between Groups	52.71	3.00	17.570	20.797	0.00	Employers	3.77	
	Within Groups	1,966.77	2,328.00	0.845			Counselors	3.82	0.865
	Total	2,019.48	2,331.00				HS Students	3.91	0.046
							Tech Students	4.15	0.000
Interviewing Skills	Between Groups	109.11	3.00	36.369	35.320	0.00	Employers	3.58	
	Within Groups	2,397.13	2,328.00	1.030			Counselors	3.84	0.000
	Total	2,506.23	2,331.00				HS Students	3.96	0.000
							Tech Students	4.16	0.000
Attendance	Between Groups	32.19	3.00	10.730	18.079	0.00	Employers	4.79	
	Within Groups	1,381.67	2,328.00	0.593			Counselors	4.77	0.947
	Total	1,413.86	2,331.00				HS Students	4.50	0.000
							Tech Students	4.68	0.031
Ability to Handle Conflict	Between Groups	40.64	3.00	13.548	18.499	0.00	Employers	4.48	
	Within Groups	1,704.91	2,328.00	0.732			Counselors	4.40	0.461
	Total	1,745.56	2,331.00				HS Students	4.14	0.000
							Tech Students	4.37	0.131
Competitiveness	Between Groups	19.81	3.00	6.604	6.405	0.00	Employers	3.47	
	Within Groups	2,400.32	2,328.00	1.031			Counselors	3.31	0.072
	Total	2,420.13	2,331.00				HS Students	3.59	0.151
							Tech Students	3.50	0.929

ANOVA		Sum of Squares	df	Mean Square	F	Sig.	Group	Mean	Sig.
CPR Certification	Between Groups	517.59	3.00	172.531	117.088	0.00	Employers	2.68	
	Within Groups	3,430.32	2,328.00	1.474			Counselors	2.73	0.892
	Total	3,947.92	2,331.00				HS Students	3.36	0.000
							Tech Students	3.81	0.000
Computer Skills	Between Groups	113.00	3.00	37.667	30.896	0.00	Employers	3.19	
	Within Groups	2,838.21	2,328.00	1.219			Counselors	3.74	0.000
	Total	2,951.21	2,331.00				HS Students	3.61	0.000
							Tech Students	3.68	0.000
Attire	Between Groups	69.01	3.00	23.005	24.195	0.00	Employers	3.80	
	Within Groups	2,213.44	2,328.00	0.951			Counselors	3.94	0.094
	Total	2,282.46	2,331.00				HS Students	4.09	0.000
							Tech Students	4.25	0.000
Critical Thinking	Between Groups	29.46	3.00	9.822	12.286	0.00	Employers	4.17	
	Within Groups	1,861.02	2,328.00	0.799			Counselors	4.03	0.053
	Total	1,890.48	2,331.00				HS Students	3.95	0.000
							Tech Students	4.22	0.669
Goal Achievement	Between Groups	29.41	3.00	9.804	12.406	0.00	Employers	4.08	
	Within Groups	1,839.77	2,328.00	0.790			Counselors	3.97	0.199
	Total	1,869.18	2,331.00				HS Students	4.02	0.584
							Tech Students	4.27	0.001
Vocational Skills	Between Groups	46.07	3.00	15.357	18.357	0.00	Employers	4.15	
	Within Groups	1,947.56	2,328.00	0.837			Counselors	4.28	0.123
	Total	1,993.63	2,331.00				HS Students	4.17	0.978
							Tech Students	4.49	0.000
Ambition	Between Groups	75.44	3.00	25.148	29.565	0.00	Employers	4.01	
	Within Groups	1,980.20	2,328.00	0.851			Counselors	3.74	0.000
	Total	2,055.64	2,331.00				HS Students	4.12	0.151
							Tech Students	4.27	0.000
Direction	Between Groups	89.87	3.00	29.957	36.849	0.00	Employers	3.85	
	Within Groups	1,892.60	2,328.00	0.813			Counselors	3.81	0.881
	Total	1,982.47	2,331.00				HS Students	4.04	0.001
							Tech Students	4.30	0.000

The mean difference is significant at the .050 level.

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